



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/870,180	05/30/2001	Kenneth L. Smith	54538USA9B011	7800
32692	7590	11/30/2005	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			GOFF II, JOHN L	
		ART UNIT		PAPER NUMBER
				1733

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/870,180	SMITH ET AL.	
	Examiner	Art Unit	
	John L. Goff	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 7/27/05, the BPAI decision.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 22-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 22-36 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 30 May 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____

DETAILED ACTION

1. This Non-Final Rejection is made in view of the BPAI decision mailed July 27, 2005. The rejection of claims 31, 33, 34, and 36 under 35 U.S.C. 103(a) as unpatentable over Chau et al. and Stamm was affirmed. Claims 31, 33, 34, and 36 remain rejected under 35 U.S.C. 103(a) as unpatentable over Chau et al. and Stamm and a new *res judicata* rejection of claims 31, 33, 34, and 36 is made. The rejection of claims 22 through 30, 32, and 35 under 35 U.S.C. 103(a) as unpatentable over Chau et al., Stamm and Rowland was not sustained because the examiner did not demonstrate, by preponderance of the evidence, that the acrylic based epoxy adhesive taught by Chau et al. inherent or necessarily has pressure-sensitive adhesive properties. In the appeal brief applicants advanced a newly presented argument that the acrylic based epoxy taught by Chau et al. was not pressure sensitive because of the epoxy functionality. While the examiner maintains that acrylic adhesives are by nature pressure-sensitive (as evidenced by Rowland) such that an acrylic based epoxy adhesive is no different, Rowland is withdrawn in favor of JP 042096876 and JP 08157793 wherein both references disclose acrylic based epoxy adhesives are pressure-sensitive adhesives.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 31, 33, 34, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chau et al. (U.S. Patent 5,735,988) in view of Stamm (U.S. Patent 3,712,706).
The rejection remains as presented in the examiner answer mailed 12/3/04.
5. Claims 31, 33, 34, and 36 are rejected under *res judicata* per the BPAI decision made July 27, 2005 affirming the rejection of these claims under 35 U.S.C. 103(a) as being unpatentable over Chau et al. and Stamm, it being noted the rejected claims are identical to the claims appealed.
6. Claims 22-25, 28-30, 32, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chau et al. and Stamm as applied to claims 31, 33, 34, and 36 above, and further in view of either one of JP 042096876 or JP 08157793.
Chau et al. and Stamm as applied above teach all of the limitations in claims 22-25, 28-30, 32, and 35 except for specifically reciting the acrylic based epoxy adhesive (the radiation

Art Unit: 1733

curable adhesive) is pressure-sensitive. However, one of ordinary skill in the art at the time the invention was made would have readily appreciated that acrylic based epoxy adhesives such as that taught by Chau et al. as modified by Stamm are pressure-sensitive as evidenced by either one of JP 042096876 or JP 08157793.

JP 042096876 and JP 08157793 specifically note acrylic based epoxy adhesives are pressure-sensitive (See the English abstracts).

Regarding claims 28 and 29, Chau et al. and Stamm as applied above teach all of the limitations in claims 28 and 29 except for a specific teaching of incompletely filling the cube corner cavities with adhesive. However, one of ordinary skill in the art at the time the invention was made would have readily appreciated that when applying the adhesive to the structured surface as taught by Chau et al. as modified by Stamm some air would remain trapped and the cavities would be incompletely filled resulting in a later settling of the adhesive.

Regarding claim 30, Chau et al. and Stamm as applied above teach all of the limitations in claim 30 except for a specific teaching as to the degree the radiation curable adhesive is cured/crosslinked prior to its application to the structured surface. Absent any unexpected results, one of ordinary skill in the art at the time the invention was made would have readily appreciated that an adhesive crosslinked to a higher degree prior to its application would reduce the processing/cure time required after its application and thus, improve production efficiency as it would apply to the radiation curable adhesive taught by Chau et al. as modified by Stamm.

7. Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chau et al., Stamm, and either one of JP 042096876 or JP 08157793 as applied to claims 22-25, 28-30, 32, and 35 above, and further in view of Rowland (U.S. Patent 3,810,804).

Chau et al., Stamm, and either one of JP 042096876 or JP 08157793 as applied above teach all of the limitations in claims 26 and 37 except for a specific teaching of using a releasable liner as the substrate. However, Chau et al. are not limited to any particular type of substrate, and Chau et al. are not limited to any particular retroreflective article. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the substrate taught by Chau et al. as modified by Stamm and either one of JP 042096876 or JP 08157793 a releasable liner as suggested by Rowland as it was conventional in the art to form the retroreflective article on a releasable liner substrate when the retroreflective article is not permanently mounted during its production such that it may be applied later to a final substrate.

Rowland discloses a method for making a retroreflective article. Rowland teaches the method comprises providing a base layer having a structured surface, applying a reflective coating to the structured surface, applying a flowable, acrylic pressure-sensitive adhesive to the structured surface, and laminating a releasable sheet to the structured surface. Rowland further teaches removing the releasable sheet to mount the reflective material on a surface (Figure3 and Column 4, lines 42-50 and Column 7, lines 63-70 and 74-75 and Column 8, lines 1-2 and the Examples).

Art Unit: 1733

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571) 272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John L. Goff

TOM DUNN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700



GREGORY MILLS
QUALITY ASSURANCE SPECIALIST